

REMARKS

Claims 14-20 and 22-26 are pending in this application.

The Examiner indicated that claims 22-25 are allowable. Applicant gratefully acknowledges the Examiner's indication of allowable subject matter.

The Examiner rejected claim 20-26 under the judicially created obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 6,624,804. Applicant hereby submits a terminal disclaimer to over the rejection.

The Examiner rejected claims 14-19 under 35 U.S.C. Section 103(a) as being obvious by Gersheneld (US Patent No. 5914701). Applicant respectfully traverses the rejection.

The present invention as claimed in claim 14 concerns a position input device as will be explained, by way of example only, with reference to FIG. 1 and related description in the specification. An oscillating signal generated by an oscillator 27 is received by electrodes 22 and 24 so that the oscillator 27 is *directly connected* (as opposed to capacitively connected) to the hand (left hand as shown) of a user.

A pair of electrodes (first and second electrodes) 20.2 and 20.1 receive signals from the right hand of the user. The signals indicate the distance of the right hand relative to the electrodes. The signals are then fed to a differential amplifier 38. The differential amplifier serves an important function because it cancels any common noise that may be present in the two electrodes (i.e., common mode rejection). The signal from the differential amplifier is then processed to generate a distance signal that indicates the location of the right hand in a particular direction.

The Examiner cited Gersheneld as anticipating claim 14. Applicant respectfully disagrees. First, Gersheneld uses a

different principle of capacitive coupling to inject signals into a human body. (see col. 4, lines 42-46; col. 7, lines 17-20). That is the reason why the human body must be connected to a room ground potential as disclosed in FIG. 1 of Gersheneld as well as a transmitter electrode and a receiver electrode. Gersheneld takes advantage of these capacitive coupling and ground coupling features to sense the position of a user. By contrast, the present invention uses a *direct connection* to directly inject an oscillating signal into the human body (see FIG. 1 of the present specification) such that there is no need for the human operator to be connected to room ground potential as required in Gersheneld. This is a fundamentally different technique from the capacitive coupling method of Gersheneld.

To make this feature clearer, Applicant has amended claim 14 to read "an oscillator that generates an oscillating injection signal for direct electrical connection ~~coupling~~ to a first body part of a human body".

Second, claim 14 recites that the second position sensing electrode provides a second signal indicative of distance of the second position sensing electrode from the second body part. The Examiner takes the position that the outer electrode 26 of FIG. 3 in Gersheneld performs that function. Applicant respectfully disagrees. As discussed at col. 4, lines 55-59, the outer electrode is coupled to ground. That means that there is no current that flows through that electrode. Accordingly, the outer electrode cannot provide a "second signal indicative of distance of the second position sensing electrode from the second body part" as recited in claim 14.

Third, the Examiner points to amplifier 47 as disclosing a "differential amplifier" as recited in claim 14. Applicant respectfully disagrees. Since the second electrode is grounded, amplifier 47 pointed to by the

Examiner is not a differential amplifier, but merely an ordinary amplifier that amplifies a signal present at electrode 24 (first electrode). In other words, it does not take the difference between the two electrodes.

For these reasons, Applicant submits that claim 14 is patentable over Gersheneld.

For the similar reasons as discussed above with respect to claim 14, Applicant submits that claim 17 is also patentable. Dependent claims 15-16 and 18-19 are also patentable by virtue of their dependency from independent claims 14 and 17.

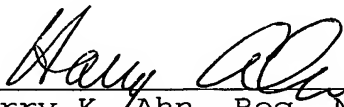
The Examiner rejected claims 20-21 under 35 U.S.C. Section 102(e) as being anticipated by Gersheneld. To advance prosecution of this application, Applicant has amended claim 20 to recite:

an oscillator that generates an oscillating
signal;
a signal injection electrode connected to the
oscillator and operable to directly connect to a body part
of an operator;

As discussed above with respect to claim 14, Applicant submits that Gersheneld neither teaches nor suggests such a novel feature as claimed in claim 20.

Based upon the above amendments and remarks, Applicant respectfully requests reconsideration of this application and its earlier allowance. Should the Examiner feel that a telephone conference with Applicant's attorney would expedite the prosecution of this application, the Examiner is urged to contact him at the number indicated below.

Respectfully submitted,


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